CLAIMS:

1. A method of controlling wireless data transmission from a mobile terminal unit (1) to a receiving system (3-6), wherein:

a) the terminal unit (1) transmits data via a short-range radio technology (2) in a first mode and switches to a second mode if the quality of the communication link via the short-range radio technology falls below a first predetermined threshold;

b) the terminal unit (1) transmits data via a long-range radio technology (7) and switches to the first mode as soon as the quality of the communication link via the short-range radio technology is above a second predetermined threshold;

c) on switching from one mode to the other, the communication link (2, 7) via the radio technology of the previous mode is maintained until the link (7, 2) is established via the radio technology of the subsequent mode.

2. A method according to claim 1, characterized in that the quality of the communication link via the short-range radio technology (2) is determined by the signal strength, the error rate and/or the signal to noise distance of the communication link.

3. A method according to claim 1 or claim 2, characterized in that the short-range radio technology (2) is based on the Bluetooth protocol.

4. A method according to at least one of claims 1 to 3, characterized in that the long-range radio technology (7) is based on a WLAN standard.

5. A method according to at least one of claims 1 to 4, characterized in that the terminal unit (1) has sensors for measuring physiological parameters of a patient.

6. A method according to at least one of claims 1 to 5, characterized in that the communication via the various radio technologies is carried out using stations (3, 5) of the receiving system that are spatially separated.

7. A method according to at least one of claims 1 to 6, characterized in that when switching between two radio technologies, the transmitted data streams are synchronized.

8. A patient monitoring system for mobile acquisition of a patient's physiological parameters, comprising a mobile terminal unit (1) and a receiving system (3-6), which is arranged to carry out a method according to at least one of claims 1 to 7.

9. A patient monitoring system according to claim 8, characterized in that the receiving system comprises a first station (3) with which the terminal unit (1) can communicate via a short-range radio technology, and a second station (5) with which the terminal unit (1) can communicate via the long-range radio technology.

10. A patient monitoring system according to claim 9, characterized in that the first and second stations (3, 5) are networked.